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basic imagery interpretation report

Soviet Mobile Missile Summary

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Deployed Strategic SSM Facilities

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LIST OF ACRONYMS AND ABBREVIATIONS*This list in its entirety is UNCLASSIFIED*

AAD	Azimuth alignment device
C3	Command, control, and communications
CAN/CAP	Canister/capsule
Cplx	Complex
Cp/bnk	Command post bunker
CSF	Complex support facilities
Div	Division
FTA	Field training area
GSE	Ground support equipment
HP/TD	Hard-point/tiedown
ICBM	Intercontinental ballistic missile
IRBM	Intermediate-range ballistic missile
km	Kilometer(s)
LAD	Launch assist device
LRP	Launch reference position
LTS	Launch test site
MRB	Missile ready building/bunker
MRBM	Medium-range ballistic missile
MSTC	Missile/space test center
MSV	Missile support van
MTC	Missile test center
nm	Nautical mile(s)
NPHF	Nuclear payload handling facility
NPIC	National Photographic Interpretation Center
NWHF	Nuclear warhead handling facility
PBV	Postboost vehicle
PGCS	Propulsion guidance control section
POE	Piece(s) of equipment
Rcvr	Receiver
Regt	Regiment
R&D	Research and development
RIC	Receiving, inspection, and checkout
RIM	Receiving, inspection, and maintenance
RTP	Rail-to-road transfer point
RVT	Revetment
SBG	Single-bay garage
SMRA	Silo materials receiving area
SRF	Strategic Rocket Forces
SSM	Surface-to-surface missile
TEL	Transporter-erector-launcher
TSA	Temporary support area
UHF/VHF	Ultra-high-frequency/very-high-frequency
Xmtr	Transmitter

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SOVIET MOBILE MISSILE SUMMARY

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SUMMARY

1. (TSR) This report updates information in NPIC report [] on SS-20 mobile IRBM base in the USSR.¹ This report also includes a synopsis of significant mobile missile activity at two offensive MTCs; three missile-related research, development, and production facilities; and several command and control facilities (Figure 1). Significant activity derived from analysis of [] is included in this report. 25X1
2. (S/WN) Significant activity observed during the reporting period included the following:
- a. The construction of an SBG and installation of hardpoints at Verkhnyaya Salda;
 - b. The identification of SS-20 equipment/vehicles at Kivertsy, Krolevets, Lebedin, and Lutsk;
 - c. The construction of an SBG at Novaya Mezinovka;
 - d. Continuing SS-20 field training exercises;
 - e. The extension of the main complex rail line at Plesetsk;
 - f. A new set of TEL leveling jack hardpoints at a Plesetsk mobile ICBM facility;
 - e. The construction of a [] SBG at Plesetsk LTS 23 ([]) 25X1
 - h. Two missile canister handling dollies and SBG components seen at Plesetsk Missile Handling Facility [] 25X1
 - i. Concealment/deception activity at Krasnoarmeysk;
 - j. A new probable mobile TEL chassis at Minsk; and
 - k. Several command and control developments.
3. (U) The reporting period extends from [] A location map, 15 annotated photographs, three tables, and one chart are included in this report. 25X1

DISCUSSION

Deployed Complexes

4. (S/WN) As of [] 34 of the 38 mobile bases were in the late stages of construction or complete and were assessed to be capable of maintaining an operational unit (Table 1). Based on past construction practices, the 38 bases including the remote site at Drovyanaya will eventually contain a total of 345 SBGs to house SS-20 missiles on launchers. Five of the bases are in the eastern section of Siberia; six are in the western section of Siberia; ten are in the central USSR; and 17 are in the western section of the USSR. 25X1

Eastern Siberia

5. (S/WN) SS-20 field training exercises in the Drovyanaya complex were as follows:

Location	Date	Remarks	
FTA 1B-Rvt []		Camouflaged SS-20-associated vehicles Camouflaged probable C3 unit Unidentified SS-20 unit	25X1 25X1
FTA 3B-Rvt []		Camouflaged SS-20 launch unit	25X1
FTA 3C []		Camouflaged SS-20 launch unit	25X1
FTA 5A-Rvt []		Camouflaged SS-20 launch unit	25X1
FTA 5B-Rvt []		Camouflaged probable SS-20 launch unit Camouflaged SS-20 launch unit	25X1
FTA 5C []		Camouflaged SS-20 launch unit	25X1
FTA RC []		Camouflaged SS-20 launch unit	25X1
FTA RD []		Camouflaged probable SS-20 TEL and several other camouflaged SS-20-associated vehicles At least five camouflaged SS-20-associated vehicles Camouflaged C3 unit	25X1 25X1

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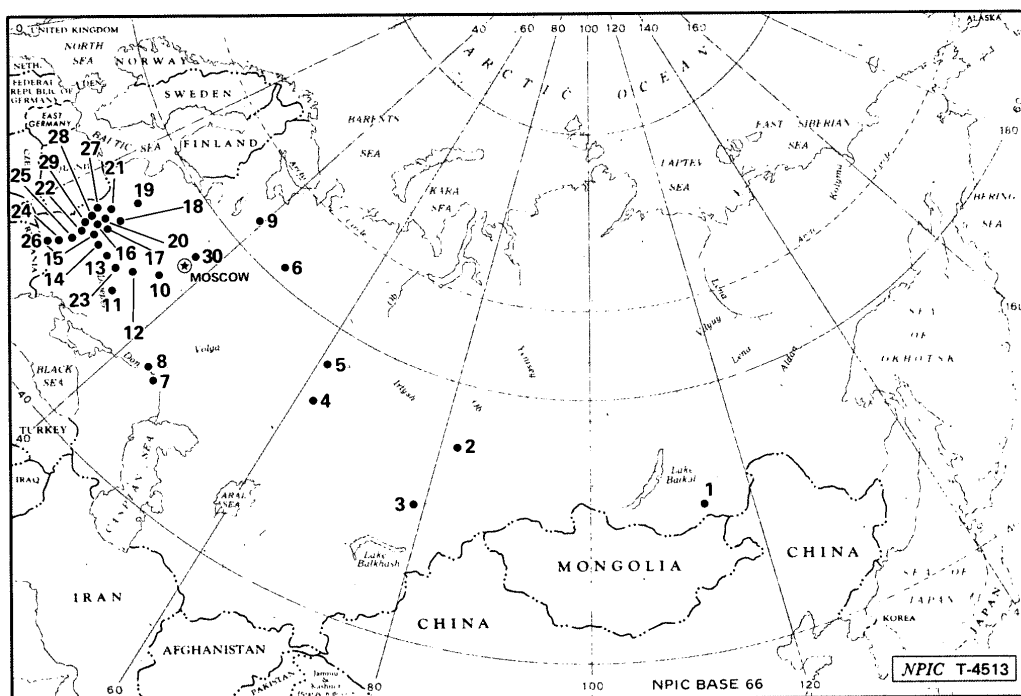


FIGURE 1. LOCATIONS OF SS-16/-20 ACTIVITY IN THE USSR

Item	Installation Name	BE No	Item	Installation Name	BE No
1	Drovyanaya Mobile IRBM Base 1		11	Lebedin Mobile IRBM Base 1	
	Drovyanaya Mobile IRBM Base 2		12	Bryansk Guided Missile Support Equipment Plant II	
	Drovyanaya Mobile IRBM Base 3		13	Rechitsa Mobile IRBM Support Base	
	Drovyanaya Mobile IRBM Base 4			Rechitsa Mobile IRBM Base 1A	
	Drovyanaya Mobile IRBM Base 5			Rechitsa Mobile IRBM Base 1B	
	Drovyanaya SS-20 Remote Site 1			Rechitsa Mobile IRBM Base 1C	
2	Novosibirsk Mobile IRBM Base 1		14	Mozyr Mobile IRBM Base/Training Facility	
	Novosibirsk Mobile IRBM Base 2		15	Konkovichi Mobile IRBM Base	
	Novosibirsk Mobile IRBM Base 3		16	Novaya Mezinovka Missile-Support Rear Depot	
	Novosibirsk Mobile IRBM Base 4		17	Gresk Mobile IRBM Base 1	
	Novosibirsk Mobile IRBM Base 5		18	Postavy Mobile IRBM Base	
	Novosibirsk Mobile IRBM Base 6		19	Polotsk Mobile IRBM Base 1	
3	Semipalatinsk NWPG			Polotsk Mobile IRBM Base 2	
4	Bobrovskiy Missile-Support Rear Depot		20	Minsk Motor Vehicle and Guided Missile Support Plant	
5	Verkhnyaya Salda Mobile IRBM Base 1		21	Smorgon Mobile IRBM Base 1	
	Verkhnyaya Salda Mobile IRBM Base 2			Smorgon Mobile IRBM Base 2	
	Verkhnyaya Salda Mobile IRBM Base 3		22	Kozhanovichi Mobile IRBM Base	
	Verkhnyaya Salda Mobile IRBM Base 4		23	Krolevets Mobile IRBM Base 1	
	Verkhnyaya Salda Mobile IRBM Base 5		24	Kivertsy IRBM Payload Handling Facility	
6	Yurya Mobile IRBM Base 1		25	Kivertsy Mobile IRBM Base 2	
	Yurya Mobile IRBM Base 2		26	Lutsk Mobile IRBM Base 1	
	Yurya Mobile IRBM Base 3		27	Lida Mobile IRBM Base 1	
	Yurya Mobile IRBM Base 4		28	Dyatlovo Mobile IRBM Base 1	
	Yurya Mobile IRBM Base 5		29	Slonim Mobile IRBM Base 1	
7	Kapustin Yar Missile/Space Test Center SSM		30	Krasnoarmeysk Solid Motor Development Facility	
8	Volgograd Steel and Machinery Plant Krasnyy Barricada 221				
9	Plesetsk Missile/Space Test Center SSM				
10	Serpukhov SSM Engineering Research Training Facility				

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18. (S//WN) Activity associated with this construction has been ongoing since January 1980. In July 1980, footings for the SBG were present. The SS-20 mobile IRBM system was first associated with this depot in 1976 when three SBGs were constructed as a prototype remote battalion-level operations area. These garages were dismantled sometime between [redacted]

Missile Test Centers

Kapustin Yar Missile/Space Test Center SSM

19. (S//WN) Seven SS-20-associated facilities and crew training areas were imaged during this reporting period. No significant activity was observed.

Plesetsk Missile/Space Test Center SSM

20. (S//WN) **Mobile ICBM-associated Bases and Facilities.** All four of the mobile ICBM-associated bases—Mobile ICBM Facility 1 (MOB 1); [redacted] Mobile ICBM Facility 2 (MOB 2); ICBM LTS 3 [redacted] and ICBM LTS 6 [redacted]—and the seven mobile ICBM-associated support facilities were imaged during this reporting period.

21. (S//WN) All 42 LRP were observed during the reporting period (Chart 1). During periods of snow, access to the LRPs was maintained and snow was cleared to provide a stable base for TEL leveling jacks at some LRPs. Occasionally, image quality was sufficient to detect canvas-covered probable AADs mounted in some of the LRPs.

22. (S//WN) **ICBM 9/10 Support Facility** [redacted]. The main complex rail line serving the Plesetsk ICBM 9/10 Support Facility is being extended by at least 33 nm. By [redacted] construction for the rail line extended at least 500 meters beyond Plesetsk ICBM LTS 28 [redacted], which is the easternmost LTS at Plesetsk. The rail extension, which has been under construction since August 1980, parallels the main complex road serving the eastern end of the test range. Prefabricated rail sections are being installed in the first 17.5 nm of the extension. A rail bridge was in the late stages of construction about 2.7 nm southwest of Plesetsk MSTC East Support Facility [redacted]; and a swath has been cleared through the trees for the next 15.5 nm of the extension. Although the purpose of the rail cannot be determined at this time, its construction could presage the construction of new rail-served missile launch test facilities at Plesetsk.

23. (S//WN) **MOB 1.** All 12 LRPs at this base were observed. Clearings for or imprints from TEL leveling jacks were identified once at an LRP. The cable replacement/refurbishment program that was begun during mid-1981 was restarted during early May 1982. A new cable has probably been laid from the operations area to the control bunker in the support area. Some interbuilding recabling has been done in the operations area. The new cable, installed along the inner fenceline of the operations area, is probably related to an upgrading of the site security system.

24. (TSR) **MOB 2.** All 12 LRPs at this base were observed. Probable AADs were periodically seen in the LRPs, and while snow was present, most LRPs had areas cleared for TELs. During mid-April, a new set of TEL leveling-jack hardpoints was installed at each of the LRPs on the concrete road west of the base (Figure 8). The distance between the hardpoints and the distance from the front hardpoints to the LRP are different from those previously identified for the SS-16 at Plesetsk. The distance from the newly installed front hardpoints to the LRP is approximately [redacted] the distance between the front and rear pair of hardpoints is approximately [redacted] and the side-to-side separation between the hardpoints is approximately 4 meters. In contrast, the distance between the LRP and the front hardpoints installed in an unimproved road outside this base in September 1978 is [redacted] the distance between the front and rear pair of hardpoints is [redacted] and the side-to-side separation between hardpoints is [redacted]. These new hardpoints could accommodate a [redacted]-long probable six-axle TEL chassis identified at Minsk Motor Vehicle and Guided Missile Support Equipment Plant. The SS-16 TEL that was observed without canvas on [redacted] was [redacted] long and [redacted] wide. It is possible that the [redacted]-meter-long chassis is a prototype or development model TEL for the follow-on to the SS-16. The increase in the spatial relationship of the new hardpoints to the LRPs suggests that preparations are underway for flight testing of a new mobile ICBM that is larger than the SS-16.

25. (S//WN) **LTS 3.** All 12 LRPs at this base were observed. Construction of the new calibration area continued at a slow pace. By [redacted] the high two-bay building and the technical support building were externally complete and the conduit that will connect the two buildings was under construction. Some recabling was being done in the support area.

26. (S//WN) **LTS 6.** All six LRPs at this base were observed. Since [redacted] at least four pieces of possible engineering equipment have been parked in front of one of the three 11-bay garages in the former SS-7 missile storage area.

27. (S//WN) **LTS 21** [redacted] No significant activity was observed. The canvas has not been replaced on the sliding-roof framework on the extension of the east pad.

28. (TSR) **LTS 23** [redacted] A modified SBG with appendage has been constructed adjacent to the silo apron of this modified type IIIE (SS-13) launch site (Figure 9). This is the first garage of its type identified at Plesetsk. The modified SBG is similar to the SS-20 SBG but is 2 meters longer. The SS-20 SBG

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is [] long while the garage at LTS 23 is [] long. The length of the garage was increased by installing an additional pair of wall stanchions. A possible LRP was installed in the floor of the garage. A cable/cable conduit trench extends from the possible LRP toward the newly constructed buried launch control building. A 5-meter-wide building appendage was constructed along the west side of the modified SBG. Two probable cable trenches entered the west side of the SBG near the south end of the garage. A cable conduit has been installed from the east side of the SBG around the end of the silo apron and connects into the buried conduit that extends between the buried launch control building and the buried control support building midway between LTS 23 and collocated Plesetsk ICBM LTS 24 []. The lateral braces and concrete foundation normally installed in an SS-20 SBG were probably not installed in this garage. On [] a net-covered CAN/CAP silo loader without prime mover was aligned with the silo at LTS 23 and a net-covered CAN/CAP transporter and two prime movers were parked on the turnaround apron of LTS 24. This equipment was probably onsite for crew training or GSE/silo compatibility testing. The construction of a mobile missile-associated SBG at this site suggests that the follow-on to the SS-16 will be flight tested from both a TEL and a silo.

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29. (S/WN) **Missile Handling Facility.** Modification of and construction at the SS-16 RIC facility continued at a moderate pace (Figure 10). Modification/construction in this facility should be completed during the third quarter of 1982. In addition, two probable missile canister handling dollies and one possible dolly have been present in the facility since March. The dollies appear to consist of a half-cylindrical cradle that is [] long and with an arc-width of [] mounted on a chassis with either rail or road wheels. The height to the top of the cradle is []. These dollies may be used to transport the canister of the SS-16 follow-on between buildings within the facility.

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30. (S/WN) Additional SBG components were delivered to the SMRA of the missile handling facility between [] and have remained in about the same position since then. These components could be used to construct a modified SBG at LTS 24.

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Mobile Missile-Related Activity at Missile Development/Production Facilities

Krasnoarmeysk Solid Motor Development Facility

[] Mobile missile-related support equipment (i.e., [] van trucks and MAZ-543 missile support vans) have also been observed at this facility in the past.

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Minsk Motor Vehicle and Guided Missile Support Equipment Plant

32. (TSR) [] A new probable mobile missile TEL chassis (Figure 12) was observed at the Minsk Motor Vehicle and Guided Missile Support Equipment Plant on []. The new chassis was [] than the SS-16/-20 TEL chassis which is produced at the Minsk plant. The new chassis probably has six axles. The front two axles could not be seen because of shadow but the rear four axles appeared to have the same positioning as those on the [] long SS-16/-20 TEL chassis. The axles on the front of the new chassis may have a larger separation than those on the SS-16/-20 TEL to accommodate the additional length which appears to be incorporated in the area immediately behind the vehicle's cab. Six-axle chassis of this length have not been identified at any other missile equipment production or development facility. Six-axle chassis, [] long, were observed at the Minsk plant on [] and at the Bronnitsy Armored Vehicle Research Facility []. It is believed that these vehicles were standard [] chassis with load simulators which overhung the rear causing the additional length. This analysis is supported by attache photography of a standard length SS-16/-20 chassis on the Minsk ring road in August 1981 (DIA. 6901 0573 81, CONFIDENTIAL). This vehicle was carrying a steel box-like load simulator which overhung the rear of the chassis approximately 1 meter, giving the vehicle an overall length of [] meters.

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33. (S/WN) Recent activities at Plesetsk MSTC have suggested that a longer TEL may be required for the new mobile ICBM under development. However, it is conceivable that the [] chassis observed at Minsk is a limited modification of the standard six-axle chassis with a function other than that of a mobile missile TEL (i.e., heavy-duty mobile crane, large pipe carrier, etc.). Until the longer chassis is observed fitted-out as a TEL, it cannot be confirmed as being for that role.

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Bryansk Guided Missile Support Equipment Plant II

34. (S/WN) SS-20 single-bay garage components continue to be fabricated and shipped from Bryansk II (Table 2). However, the facility was imaged only eight times during the reporting period. This sampling rate is inadequate for assessing a total component production rate. The figures presented in Table 2 represent a minimum number of components produced/shipped and total production figures cannot be extrapolated.

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Table 2.
Minimum Number of SS-20 Single-Bay Garages Fabricated at and
Shipped from Bryansk Guided Missile Support Equipment Plant II

This table in its entirety is classified SECRET/WNINTEL

Dates of Usable Coverage	Number of Days Between Usable Coverages	Fabricated Complete Garages*	Fabricated Incomplete Garages	Shipped Complete Garages	Shipped Incomplete Garages	
	38	0	1-2	0	1	25X1
	2	0	0	0	0	
	5	1	0-1	0	0	
	10	0	0-1	0	2	
	23	1	1-2	2	2	
	4	0	0	0	0	
	3	1	0	0	0	
	8	0	1-2	0	0	
	14	1	1	0	0	
Garages fabricated and shipped []		8-13		7		25X1
Garages fabricated and shipped prior to []		168-188		161-178		25X1
Garages fabricated and shipped since []		176-201		168-185		25X1

Number of garages currently identified at mobile missile bases and other related facilities: 358

*Includes four sliding-end sections and eight sliding-roof sections.

**No usable imagery of the plant was acquired between []

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35. (S/WN) A review of imagery of the Bryansk Plant has revealed that the past method of assessing single-bay garage component production was invalid and resulted in approximately a 50 percent overage in previous component counts. The totals for components fabricated and shipped prior to [] have been adjusted in Table 2 to correct this error. 25X1

Command and Control Activity

36. (S/WN) Significant command and control developments observed during the reporting period (Table 3) include the following:

- a. The identification of new regimental headquarters under construction at Kivertsy Mobile IRBM Base 2, Krolevets Mobile IRBM Base 1, Lebedin Mobile IRBM Base 1, and Lutsk Mobile IRBM Base 1;
- b. Deactivation activity at Krolevets IRBM Regimental Headquarters Receiver/Bunker (BE []) and Lutsk MRBM Regimental Headquarters Radio Communications Receiver/Bunker/Hard [] 25X1
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25X1
- c. Modification of the Kivertsy MRBM Regimental Command Post/Bunker [] 25X1
- d. The identification of a large C-shaped headquarters/administration building and a four-story barracks under construction at the Mozyr IRBM Training Base;
- e. The completion of a headquarters/administration-type building at the Mozyr MRBM Division Command Post/Bunker [] 25X1
- f. The identification of an existing administration-type headquarters at Smorgon Mobile IRBM Base 1;
- g. The construction of two new lattice towers at Postavy IR/MRBM Division Command Post Bunker [] 25X1
- h. The identification of a mobile TWIN EAR unit at Drovyana Mobile Base 5;
- i. The construction and subsequent dismantlement of a mast-mounted TWIN EAR antenna at Verkhnyaya Salda ICBM Headquarters Receiver/Bunker/Hard [] and 25X1
- j. The dismantlement of the rhombic antenna and the construction of four horizontal dipole antennas at Yurya Surface-to-Surface Missile Headquarters Radio Relay and Radio Communications Transmitter Station [] 25X1

37. (S/WN) New regimental headquarters have been identified in the mid-to-late stages of construction in the support areas at Kivertsy Mobile IRBM Base 2, Krolevets Mobile IRBM Base 1, Lebedin Mobile IRBM Base 1, and Lutsk Mobile IRBM Base 1. The construction of the four new regimental headquarters was first identified on imagery acquired in March and May 1982. Completed regimental headquarters at mobile IRBM bases in the western USSR usually consist of the following components: a headquarters/administration building, an 11-bay garage, two horizontal dipole antennas oriented towards Moscow, and two steel lattice towers that probably support UHF/VHF antennas. At Lebedin, the new regimental headquarters may also include a new 35- by 7- by 4-meter, arch-roofed support bunker and an old existing nearby regimental command post bunker (Lebedin IRBM Regimental Command Post/Bunker []) which has been undergoing modifications to the roof and surrounding area since July 1981. At Kivertsy, the new regimental headquarters will have a ten-bay rather than an 11-bay garage. This reduction in the number of storage bays suggests either a change in the command and control vehicle order-of-battle or the storage of some non-essential vehicle(s) elsewhere on base. The exact number, type, and importance of all of the vehicles stored in an 11-bay garage has not yet been determined. 25X1

38. (S/WN) The previously reported deactivation of the Krolevets IRBM Regimental Headquarters Receiver/Bunker had been completed by late May as indicated by the removal of all of the antennas in the facility and the construction of the following items in the dismantled antenna field: four single-story barracks, a messhall, two small support buildings, a realigned security fence, a new access road, and a soccer field. The dismantlement of this regimental receiver began between July 1981 and January 1982 and is a typical result of SS-20 conversion activity.

39. (S/WN) The Konkovich MRBM Regimental Radio Receiver Station/Bunker/Hard, which is 1 nm east of Konkovich IRBM Base 1 [] was completely deactivated when its last remaining antenna, a type-B hardened antenna, was dug up in May. Portions of the facility were possibly being used for driver training. The dismantlement of this facility began in early 1981. 25X1

40. (S/WN) The deactivation of the Lutsk MRBM Regimental Headquarters Radio Communications Receiver/Bunker/Hard, which is collocated with Lutsk MRBM Launch Site 1 [] had begun by late May. A probable construction support area has been established in the eastern portion of the antenna field. It is anticipated that the antennas will soon be removed, resulting in the complete deactivation of this facility. 25X1

41. (S/WN) The Kivertsy MRBM Regimental Command Post/Bunker, which is collocated with Kivertsy Mobile IRBM Base 1, was undergoing unidentified modifications by mid-March. These modifications consisted of re-excavating a portion of the earth mounding across the full width of the command post/bunker and possibly constructing new antennas beside the bunker. However, the full extent of the activity was obscured by trees.

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Table 3. Command and Control Developments at Deployed SS-20-Associated Facilities as of 15 June 1982

This table in its entirety is classified TOP SECRET RUFF

		ANTENNAS ADDED SINCE SS-20 ACTIVITY WAS FIRST OBSERVED										PRESENT ANTENNA INVENTORY												Comments							
		Active	Deactivated	Under Construction	30 Meter Tower	Roof Mounted Arrays [XUELO]	Horizontal Dipole Antennas	Fishbone Antennas	Rhombic Antennas	Quadrant Antennas	Hardened Antennas	Antenna Masts	Lattice Towers (all types)	Horizontal Dipole Antennas	Fishbone Antennas	Rhombic Antennas	Quadrant Antennas	Hardened Antennas	Antenna Masts	Large C-Shaped Ho/Admin Bldg	Small C-Shaped C&C Bldg	Rectangular Bldg Assoc w/Small C-Shaped Bldg	3-Story Rectangular Ho/Admin Bldg			Bunker Modification Yes/No Completed	Communications Satellite Station	Mobile TWIN EAR Unit Regularly Seen			
CHITA SRF ARMY																															
Drovyannaya ICBM Cplx		A	4	-	-	2	-	-	-	-	-	6	-	3	-	-	-	1	-	-	-	-	Comp	Type B*	No			25X1			
CP/Bnk		A	2	-	-	-	-	-	-	-	-	2	1	4	-	-	-	3	-	-	-	-	No	Yes	Yes*			Parking apron for TWIN EAR still ucon	25X1		
CP/Alt/Bnk		A	2	-	-	-	-	-	-	-	2*	3	2	-	-	-	-	2	-	-	-	-	Yes	-	-	-		2 sets of mast-mounted, TWIN EAR ants erected	25X1		
Rad Rcvr		A	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-			25X1		
Rad Xmtr		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			25X1		
Mobile Base 1		A	2	Yes	-	-	-	-	-	-	2	2	-	-	-	-	-	2	-	-	-	-	-	-	-	*		Occasionally seen	25X1		
Mobile Base 2		A	2	Yes	-	-	-	-	-	-	1	2	Yes	-	-	-	-	1	-	-	-	-	-	-	-	No				25X1	
Mobile Base 3		A	2	Yes	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	No				25X1	
Mobile Base 4		A	4	Yes	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-				25X1	
Mobile Base 5		A	2	Yes	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	*		Occasionally seen		25X1	
Otovyannaya ICBM Cplx		A	3	-	-	1	-	-	-	3*	4	3	1	4	-	-	3*	6	-	-	-	-	Yes	Type B	No			3* Washer ants		25X1	
CP/Bnk		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	No	-	No					25X1	
CP/Alt/Bnk		A	-	-	-	-	-	-	-	-	-	2	2	4	-	-	-	-	-	-	-	-	No	-	No					25X1	
Rad Rcvr		A	-	-	-	-	-	-	-	-	-	2	1	2*	-	-	2	1	-	-	-	-	No*	-	No			2 Fishbone ants removed; 2 new bldgs in ant field		25X1	
Rad Xmtr NE		A	-	-	-	-	-	-	-	-	-	-	3	-	-	8	-	-	-	-	-	-	No	-	No					25X1	
Rad Xmtr NW		A	-	-	-	-	-	-	-	-	-	2	6	-	-	8	-	2	-	-	-	-	No	-	No			1 new double rhombic antenna ucon		25X1	
Mobile Base 1*		U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No		SS-20 constr activity abandoned in 1979		25X1	
VINNITSA SRF ARMY																															
Mozyr MRBM Div		A	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	3	-	-	-	-	Comp	Type A	No			New bldg completed near bunker		25X1	
CP/Bnk		A	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	3*	-	-	-	-	No	-	No			2 masts support FORK REST ants		25X1	
Rad Rcvr		A	-	-	-	-	-	-	-	-	-	-	7	-	-	2	-	4*	-	-	-	-	No	-	No			2 masts support FORK REST ants (Dec 77 imagery)		25X1	
Rad Xmtr		A	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	No	-	No					25X1	
Mobile Base*		A	-	No	2	-	-	-	-	-	-	-	2	-	-	-	-	-	-	Ucon	1	1	-	-	-	No		Mozyr Mobile IRBM Base/Training Fac; ants by C-shaped C &		25X1	
Konkovich MRBM Regt		A	-	-	2	-	-	-	-	3	-	-	2	-	-	-	-	3	-	-	-	Yes	No	No	No			This facility near the mobile base		25X1	
CP/Bnk*		D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No	No	No	No			This facility near the mobile base		25X1	
Rad Rcvr*		A	-	-	-	-	-	-	-	-	-	-	8	-	-	1 prob	-	-	-	-	-	No	No	No	No					25X1	
Rad Xmtr		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No	No	No					25X1	
Mobile Base		A	-	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	No				25X1	
Kozhanovichi MRBM Regt		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No	No	-			This facility near the mobile base		25X1	
CP/Bnk*		A	-	-	2	-	-	-	-	1	-	-	4	-	-	2	-	3	-	-	1	-	No	No	No	-		This facility at the mobile base		25X1	
Rad Rcvr*		A	-	-	-	-	-	-	-	-	-	-	4	-	-	2	-	-	-	-	-	-	No	No	-					25X1	
Rad Xmtr		A	-	-	-	-	-	-	-	-	-	-	4	-	-	2	-	2	-	-	-	-	No	No	-					25X1	
Mobile Base		A	-	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-				25X1	
Gomel MRBM Regt		A	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	3	-	-	-	-	No	No	No			2 masts support FORK REST ant		25X1	
CP/Bnk		A	-	-	-	-	-	-	-	-	-	-	2	-	-	4	-	3*	-	-	-	-	No	No	No			3 FORK REST ants		25X1	
Rad Rcvr		A	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	No	No	No					25X1	
Rad Xmtr		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				25X1	
Mobile Base*		A	-	No	2	-	-	-	-	-	-	-	2*	-	-	-	-	-	1	1	1	-	-	-	-	No		Rechitsa Mobile IRBM Spt Base; ants by C-shaped C&C bldg		25X1	
Lutsk MRBM Div		A	-	-	-	-	-	-	-	-	-	-	2	-	-	2	-	4	-	-	-	-	-	-	-	-			2 FORK REST ants		25X1
CP/Bnk		A	-	-	-	-	-	-	-	-	-	-	2	-	-	2	-	2*	-	-	-	-	-	-	-	-				25X1	
Rad Rcvr		A	-	-	-	-	-	-	-	-	-	-	2	-	-	4	2	-	3	-	-	-	-	-	-	-				25X1	
Rad Xmtr		A	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-				25X1	
Lutsk MRBM Regt		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-			This facility at MRBM launch site 1		25X1
CP/Bnk*		D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-			This facility at MRBM launch site 1		25X1
Rad Rcvr*		A	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	Yes	-	-				25X1	
Mobile Base 1		U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				25X1	

*See comments.
Red indicates changes since [] the cutoff date of the updated report, []

25X1

Table 3 (Continued)

		ANTENNAS ADDED SINCE SS-20 ACTIVITY WAS FIRST OBSERVED										PRESENT ANTENNA INVENTORY										Comments					
		Active	Discontinued	30 Meter Lattice	Roof Mounted Arrays	Horizontal Dipole	Fishbone Antennas	Rhombic Antennas	Quadrant Antennas	Hardened Antennas	Antenna Masts	Lattice Towers (all types)	Horizontal Dipole Antennas	Fishbone Antennas	Rhombic Antennas	Quadrant Antennas	Hardened Antennas	Antenna Masts	Large C-Shaped HQ Admin Bldg	Small C-Shaped C&C Bldg	Rectangular Bldg Assoc w/Small C-Shaped Bldg			3-Story Rectangular HQ Admin Bldg	Bunker Modification Yes	No Completed	Communications Satellite Station
Kivertsy MRBM Regt CP/Bnk* Rad Rcvr*	A* D	-	-	-	-	-	-	-	-	-	-	4	-	-	-	1	2	-	-	-	-	Yes	-	-	-	Bunker modifications underway	25X1
Mobile Base 2	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	3 cylindrical storage tanks on site	25X1
Romny IR/MRBM Div CP/Bnk Rad Rcvr Rad Xmtr	A A A	-	-	-	-	-	-	-	-	-	4	-	-	2	-	5	-	-	-	-	-	-	-	-	-	11 revetments in ant field Mar 78	25X1 25X1
Krolevets IRBM Regt CP/Bnk* Rad Rcvr* Rad Xmtr	A D A	2	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	1	No	No	No	No	No	This facility at Mobile Base 1	25X1
Mobile Base 1*	U	-	-	-	-	-	-	-	-	-	6	-	-	-	-	2	-	-	-	-	No	No	No	No	No	This facility at Mobile Base 1; 6 horizontal dipoles and 2 masts removed	25X1
Lebedin IRBM Regt CP/Bnk* Rad Rcvr*	A D	2	-	1	-	-	-	-	3	2	1	-	-	-	-	3	-	-	-	-	Yes	-	-	-	-	This facility at Mobile Base 1; arch-roofed support bunker ucon	25X1
Mobile Base 1*	A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	This facility at Mobile Base 1	25X1
OMSK SRF ARMY																										See CP/bnk entries	25X1
Novosibirsk ICBM Cplx CP/Bnk Rad Rcvr Rad Xmtr	A A A A	2	-	-	1	-	-	-	1	4	2	1	-	-	-	1	3	-	-	-	Comp	-	-	-	-	1 mast supports FORK REST ant	25X1
Mobile Base 1	A	2	Yes	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No	1 Lattice tower has KY-EL-06 ant on top	25X1
Mobile Base 2	A	2	Yes	-	-	-	-	-	-	2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No	-	-
Mobile Base 3	A	2*	Yes	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No	-	-
Mobile Base 4	A	2	Yes	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No	-	-
Mobile Base 5	A	2*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1*	-	-	-	-	-	No	-	-
Mobile Base 6	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	No	Roof-mounted prob ants	25X1
SMOLENSK SRF ARMY																											
Postavy MR/IRBM Div CP/Bnk Rad Rcvr Rad Xmtr	A * A	3	-	2	-	-	1	-	-	3	4	-	-	1	-	3	-	-	-	-	Comp	No	Yes	-	-	5 van trucks & trailers at bnk; 3 new lattice towers with 3 TWIN EAR ants	25X1
Mobile Base 1	A	-	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Postavy MRBM Regt CP/Bnk* Rad Rcvr*	A D	-	-	2*	-	-	-	-	-	-	2*	-	-	-	-	1	-	1	-	-	Comp	No	No	-	-	This facility at the mobile base; dipole down prob temporarily	25X1
Mobile Base	A	-	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	This facility near the mobile base	25X1
Smorgon IRBM Regt CP/Bnk*	A	2	-	2	-	-	-	1	-	2	2	-	-	-	-	1	-	-	-	-	Comp	No	No	-	-	This facility at Mobile Base 1; a 2-story irregularly shaped hq/admin bldg also present	25X1
Rad Rcvr* Rad Xmtr	D A	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	No	No	No	-	This facility near Mobile Base 1	25X1
Mobile Base 1	A	2	No	2	-	-	-	-	-	-	2	-	-	-	-	-	-	-	1*	-	-	-	-	-	-	Occasionally seen; admin-type hqs newly identified in support area	25X1
Mobile Base 2	A	-	No	-	-	-	-	1	-	1	2	-	-	-	-	1	-	-	1*	-	-	-	-	-	No	Roof-mounted prob ants	25X1
Polotsk MRBM Regt CP/Bnk* Rad Rcvr* Rad Xmtr*	A D A	-	-	2	-	-	-	3	-	-	2	-	-	-	-	3	-	-	-	-	Yes	No	No	-	-	This facility at Mobile Base 1	25X1
Mobile Base 1	A	-	No	2	-	-	-	-	-	-	8	-	-	-	-	1*	-	-	-	-	-	No	No	No	-	Polotsk/Diana MRBM Regt Xmtr; mast supports a FORK REST ant	25X1
Mobile Base 2	A	-	No	-	-	-	-	1	-	-	2	-	-	-	-	-	-	-	1*	-	-	-	-	-	No	Roof-mounted prob ants	25X1
Lida MRBM Div CP/Bnk Rad Rcvr Rad Xmtr	A A A	-	-	-	-	-	-	-	-	-	1	-	-	-	-	3	-	-	-	-	No	No	No	No	-	Double rhombic ant	25X1
	A	-	-	-	-	-	-	-	-	-	10	-	-	2*	-	-	-	-	-	-	-	No	No	No	-	-	25X1
	A	-	-	-	-	-	-	-	-	-	2	-	-	4	-	2	-	-	-	-	-	No	No	No	-	-	25X1

*See comments.
Red indicates changes since [] the cutoff date of the updated report []

Top Secret RUFF

Table 3. (Continued)

		ANTENNAS ADDED SINCE SS-20 ACTIVITY WAS FIRST OBSERVED										PRESENT ANTENNA INVENTORY										Comments				
		Active Under Construction	30 Meter Tower	Roof-Mounted Lattice (YU-EL-01)	Horizontal Dipole Antennas	Fishbone Antennas	Rhombic Antennas	Quadrant Antennas	Hardened Antennas	Antenna Masts	Lattice Towers (all types)	Horizontal Dipole Antennas	Fishbone Antennas	Rhombic Antennas	Quadrant Antennas	Hardened Antennas	Antenna Masts	Large C-Shaped Hq/Admin Bldg	Small C-Shaped Hq/Admin Bldg	Rectangular C&C Bldg w/Small C-shaped Assoc	3-Story Rectangular Hq/Admin Bldg			Bunker Modification Yes/No/Completed	Communications Satellite Station	Mobile TWIN EAR Unit Regularly Seen
Lida MRBM Regt CP/Bnk* Rad Rcvr	A	—	—	—	—	—	—	—	—	—	*	—	—	2	1*	2	—	—	—	—	—	—	No	No	Cp/bnk & rcvr at Launch Site 2 Hardened ant is Type B; at least 2 horizontal dipole ants have been removed	25X1 25X1
Mobile Base 1	A	2*	—	2	—	—	—	—	—	2*	2	—	—	—	—	—	—	1*	—	—	—	—	—	—	Roof-mounted prob ants; prob K-Y-EL-06	25X1
Gresk MRBM Regt CP/Bnk* Rad Rcvr* Rad Xmtr	A A A A	— — — —	— — — —	3* — — 4	— — — —	— — — 2*	— — — —	— — — 1	— — — —	5* — — —	3 — 4 4	— — — —	— — — 2*	— 2 — —	— 1* — —	2 2 — 1	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	This facility at Mobile Base 1; 2 of the masts have rotatable log periodic ant on them This facility at Mobile Base 1; hardened antenna is type B Double rhombic ants	25X1 25X1 25X1 25X1
Mobile IRBM Base 1	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	No	—	No	No	No	—	25X1	
Dyatlovo MRBM Regt CP/Bnk* Rad Rcvr* Rad Xmtr	A A A A	2 — — —	— — — —	— — — —	2 — — —	— — — —	— — — —	— — — —	— — — —	— — — —	2 2 — 4	— — — —	— — — —	— — 2 2	— — — 1	— — 2 2	— — — —	— — — —	— — — —	— — 1 —	— — — —	— — — —	— — — —	— — — —	This facility at Mobile Base 1 This facility near Mobile Base 1	25X1 25X1 25X1 25X1
Mobile Base 1	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25X1	
Pruzhan MRBM Div CP/Bnk* Rad Rcvr Rad Xmtr	A A A A	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	3 — — 4	— — — —	— 2 — 6	— 2 — 2	— 2 — 2	1* — — 2	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	FORK REST	25X1 25X1
Slonim MRBM Regt CP/Bnk* Rad Rcvr* Rad Xmtr	A D A A	2 — — —	— — — —	2 — — —	— — — —	— — — —	— — — —	— — — —	— — — —	2 2 — 4	2 — — —	— — — —	— — — —	— — — 2	— — — —	— — — —	— — — —	— — — —	— — — —	— — — —	1 — — —	— — — —	— — — —	— — — —	This facility at Mobile Base 1 This facility at Mobile Base 1	25X1 25X1 25X1 25X1
Mobile Base 1	A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25X1	
ORENBURG SRF ARMY Verkhnyaya Salda ICBM Cplx CP/Bnk Hq Spt Rcvr Rad Rcvr Rad Xmtr	A A A A A	7 3 — — —	— — — — —	5 — — — —	1 — — — —	— — — — —	— — — — —	— — — — 1	— — — — —	— — — — —	9 3 2 — —	4 2 2 — —	1 — — — —	— — 2 — —	— 2 2 — —	2 7* — — —	— — — — —	— — — — —	— — — — —	— — — — —	Comp — — — —	No No No No No	No No No No No	1 FORK REST ant; 1 TWIN EAR ant present; 1 TWIN EAR ant removed Fac prob deactivated	25X1 25X1 25X1 25X1 25X1	
Mobile Base 1 Mobile Base 2 Mobile Base 3 Mobile Base 4 Mobile Base 5	A A A A A	2 2 2 4 1	Yes Yes Yes No —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	2 2 — 4* 1	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	No No No No No	Roof-mounted prob ants; 1 lattice tower has been dismantled Roof-mounted prob ants	25X1	
VLADIMIR SRF ARMY Yurya ICBM Cplx CP/Bnk Rad Rcvr Rad Xmtr	A A A A A	7 3 — — —	— — — — —	3 4 — — —	1 — — — —	— — — — —	— — — — —	— — — — 2	— — — — —	9 3 — — —	3 8 — — —	1 — — — —	— — — — —	— — — — —	— — — — —	2 — — — —	5* — — — 6*	— — — — —	— — — — —	— — — — —	Comp — — — —	No No No No No	No No No No No	2 FORK REST ants; 2 pairs of TWIN EAR ant 3 FORK REST ants; 1 R-400 ant	25X1 25X1 25X1 25X1 25X1	
Mobile Base 1 Mobile Base 2 Mobile Base 3 Mobile Base 4 Mobile Base 5	A A A A A	2 2 2 2 2	Yes Yes Yes No —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	2 2 — 2 2	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	— — — — —	No No No No No	Roof-mounted prob ants Roof-mounted prob ants	25X1	

*See Comments.

Rad indicates changes since [] the cutoff date of the updated report, []

25X1

- 25X1
42. (S/WN) A large C-shaped headquarters/administration building and a four-story barracks were first identified in mid-March in the late stages of construction in the command and control area at the Mozyr Mobile IRBM Training Base (Figure 13). When these buildings are complete, this command and control area will be identical to the one at the Rechitsa Mobile IRBM Support Base. Both command and control areas will have one large and one small C-shaped headquarters/administration building with an attached rectangular building, a four-story barracks, and two horizontal dipole antennas oriented towards Moscow. No other SS-20-associated command and control facilities are similarly configured.
43. (S/WN) The headquarters/administration-type building that had been under construction since September 1980 near the Mozyr MRBM Division Command Post/Bunker had been completed by March 1982 (Figure 14). This building is two stories high, irregularly shaped, and [redacted] It is 25X1 not necessarily associated with SS-20 deployment, however, as an identical building was constructed between June 1979 and October 1980 at the Khmel'nitsky ICBM Complex Command Post/Bunker (BE [redacted] where no SS-20 deployment has occurred or is expected. 25X1
44. (S/WN) An old administration-type headquarters was newly identified at the main entrance to the support area for Smorgon Mobile IRBM Base 1 (Figure 15). This headquarters is fence secured and consists of a C-shaped headquarters/administration building with a rectangular building annex, an adjacent rectangular administration building, and a horizontal dipole antenna oriented 110/290 degrees toward an undetermined correspondent. This headquarters was present prior to SS-20 site conversion, which was first observed in April 1978. However, the lack of apparent modifications to this old headquarters suggests that it is probably adequate to support some SS-20-associated administration-type communications.
45. (S/WN) At Postavy IR/MRBM Division Command Post Bunker, two new 30-meter-high lattice towers had been constructed by [redacted] bringing the total to three. 25X1
46. (S/WN) At Drovyayaya Mobile IRBM Base 5, a mobile TWIN EAR unit (Figure 16) was observed in the travel mode at the 11-bay garage on [redacted] 25X1
47. (S/WN) At Verkhnyaya Salda ICBM Headquarters Receiver/Bunker/Hard, a second mast-mounted TWIN EAR antenna, oriented southeast, had been constructed by [redacted] This antenna was 25X1 subsequently dismantled by [redacted] 25X1
48. (S/WN) At Yurya Surface-to-Surface Missile Headquarters Radio Relay and Radio Communications Transmitter Station, the double rhombic antenna was replaced with four horizontal dipole antennas. However, the extent of the changes at this facility remains undetermined because of poor image quality.

REFERENCES

IMAGERY

(S/WN) All applicable satellite imagery acquired from [redacted] was used in the preparation of this report. 25X1

DOCUMENT

1. NPIC: [redacted] RCA-01/0008/82, Soviet Mobile Missile Summary, [redacted] 25X1
(S), Apr 82 (TOP SECRET) [redacted] 25X1
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RELATED DOCUMENT

NPIC: [redacted] IAR-0010/80, SS-20 Field Training Areas, USSR (S), Jun 80 (TOP SECRET) [redacted] 25X1
[redacted] 25X1

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(S) Comments and queries regarding this report are welcome. They may be directed to the following points of contact in the Soviet Strategic Forces Division, Imagery Exploitation Group, NPIC:

Name(s)	Section of Report	Extension	
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[redacted]	Deployed Bases	[redacted]	[redacted]
	Missile Test Centers		
	Missile-Related R&D		
	& Production Facilities		
	Command & Control Activity		

25X1

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